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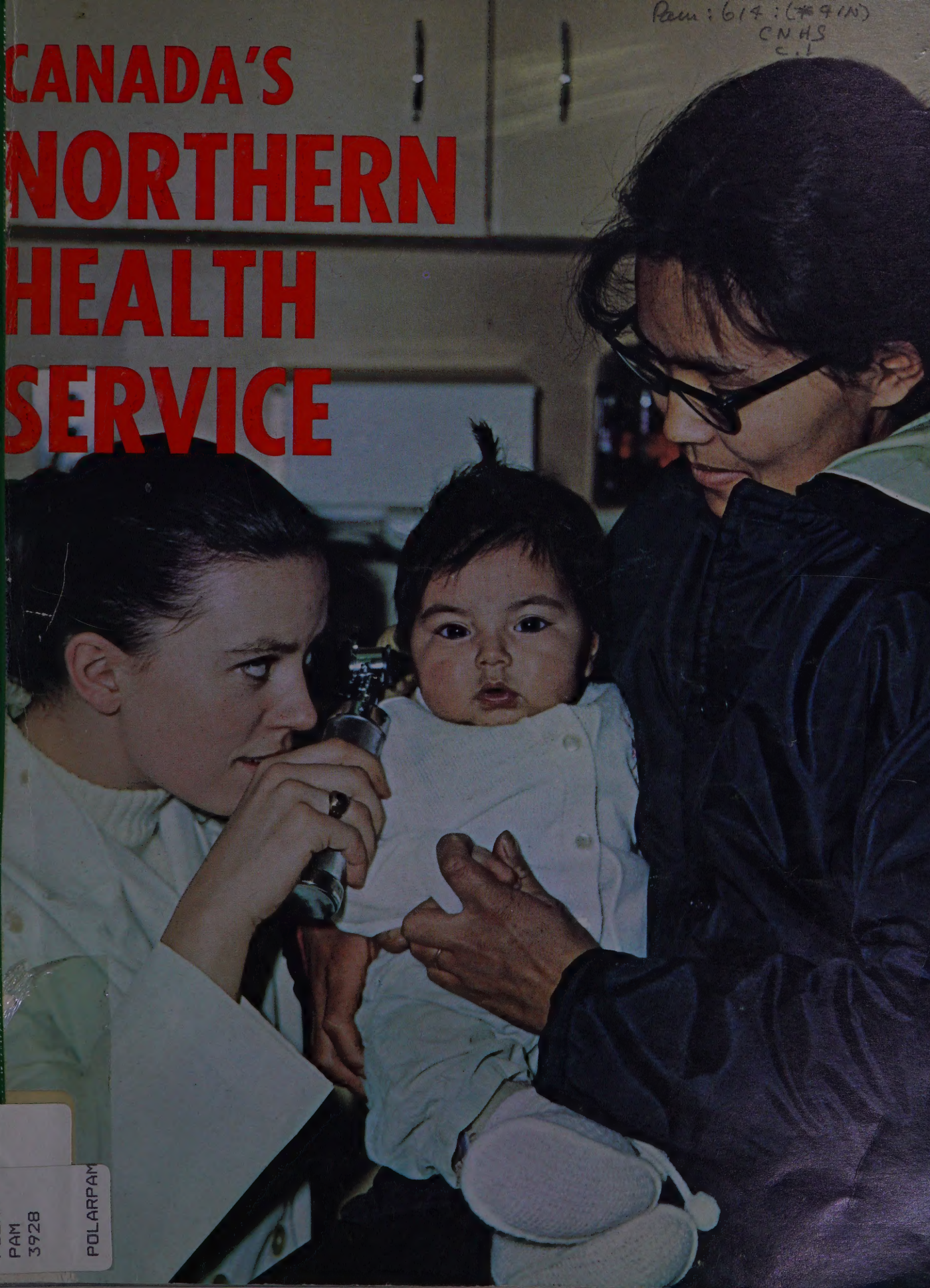
CANADA'S NORTHERN HEALTH SERVICE



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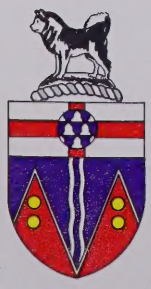
INTRODUCTION



Front Cover — a tiny tot has her ear examined at a northern nursing station.

This is a story of a health service, a health service which is certainly unique on the North American continent. It is, in many ways, similar to the health services which are being delivered to the so-called "developing countries" of south-east Asia, Africa and South America. But this service is taking place here and now, in Canada, in the land of opportunity, the land of plenty and, ironically, it is a service directed at the 'original' Canadians, the founders of this country, the Indian and the Eskimo. This is the story of Canada's Northern Health Service.

The Canadian North is that part of Canada which lies above the ten provinces. It constitutes 40% of Canada's total area but it holds a population of only 47,000 people. In southern Canada a compact population of this size would hardly be a challenge to the local health department; but in the north 'fate' has decreed that these people should be distributed over 1¼ million square miles of the most inaccessible and harshest climates in the world. The population distribution is about one person per 100 square miles. The problem is compounded by the presence of two distinct and separate, and historically hostile races, the Indian and the Eskimo. It is further complicated by differing languages, differing values; and finally, we deal with a people who, traditionally, have been singularly unimpressed with the 'White Man's" emphasis on the importance of the basic principles of personal health, hygiene and even physical survival.

The Northern Health Service cannot be proud of the fact that it is a relative 'newcomer' to the north. The first northern hospital was established in 1867 by a religious order and the first 'resident' physician arrived the next year. It was not until the onset of World War II that the Canadian government began to take a concerted interest in the awesome health problems of the north. Prior to that time the north was 'serviced' medically by the religious order, the Hudson's Bay trader, the surgeons of the whaling ships and the occasional medical missionary. Perhaps nowhere in the annals of medicine can one discover a greater

DEPARTMENT OF
NATIONAL HEALTH AND WELFARE

CANADA

MINISTÈRE DE LA
SANTÉ NATIONALE ET DU BIEN-ÊTRE SOCIAL

Dear Reader:

The booklet you are about to read was prepared by Northern Health Services during the Northwest Territories Centennial year as a project to tell you something about the expanding Health Service that exists in the Northwest and Yukon Territories.

To my staff and other Government employees, including those of the Territorial Governments, the booklet pictorially portrays the scope of the Health Care Organization in which you all play a very vital role.

To prospective recruits, it tells about the disciplines that make up the Service and something about living and working conditions in northern Canada.

To other interested readers, it is the story of Health Care in Canada's Frontier Areas -- not in terms of drama or adventure -- but about the everyday work of a dedicated Health Care Team.

The booklet was made possible by donations of time and material by many staff members and through the permission and support of Dr. J. H. Wiebe, Assistant Deputy Minister, Medical Services Branch of the Department of National Health & Welfare, and the Commissioners and Governments of the Yukon and Northwest Territories.

I hope you find *CANADA'S NORTHERN HEALTH SERVICE* interesting and informative.

Sincerely,

Gordon C. Butler, M.B., B.Ch., D.P.H.
Chief, Northern Health Service, and
Director, Northern Region, Medical Services

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LEGEND
Regional Headquarters
Hospital
Nursing Station
Health Centre
Public Service Health Unit
Quarantine Station
Clinic
ARCTIC OCEAN
BEAUFORT SEA
BAFFIN BAY
DAVIS STRAIT
HUDSON BAY
HUDSON STRAIT
GREENLAND (DENMARK)
ALASKA (U.S.A.)
YUKON TERRITORY
NORTHWEST TERRITORIES
DISTRICT OF MACKENZIE
DISTRICT OF FRANKLIN
NORTHERN KEEWATIN REGION
FOXE BASIN
ALBERTA
SASK.
MANITOBA
BRITISH COLUMBIA
DRIFTPILE REGION
QUEEN ELIZABETH ISLANDS
VISCOUNT MELVILLE SD.
BANKS ISLAND
VICTORIA ISLAND
PRINCE OF WALES ISLAND
SOMERSET ISLAND
BOOTHIA PENINSULA
MELVILLE PENINSULA
BROUGHTON ISLAND
SOUTHAMPTON ISLAND
COATS ISLAND
AXEL HEIBERG ISLAND
EUREKA
RESOLUTE
ARCTIC BAY
POND INLET
CLYDE
CAPE DORSET
FROBISHER BAY
PORT BURWELL
INUVIK
AKLAVIK
TUKTOYAKTUK
COLD CROWN
FORT MCPHERSON
DAWSON
MAYO
KENO
HAINES JUNCTION
WHITEHORSE
CARCROSS
FARO
TESLIN
WATSON LAKE
FORT LIARD
FORT GOOD HOPE
FORT FRANKLIN
FORT NORMAN
COPPERMINE
CORONATION GULF
GREAT BEAR LAKE
PORT RADIUM
WRIGLEY
FORT SIMPSON
RAE
YELLOWKNIFE
GREAT SLAVE LAKE
FORT RESOLUTION
HAY RIVER
FORT SMITH
HAY LAKE
FOX LAKE
FORT CHIPEWYAN
ATHABASCA
STONY RAPIDS
DRIFTPILE
BONNYVILLE
CHAR LAKE
CAMSELL PORTAGE
GODFISH LAKE
BAKER LAKE
RANKIN INLET
ESKIMO POINT
CHESTERFIELD INLET
CHURCHILL
BROCHET
LYNN LAKE
SOUTH INDIAN LAKE
SPLIT LAKE
YORK FACTORY
SHAMATTAWA
PUKATAWAGAN
POVUNGNITUK
SAGLOUK
MANSEL
COATS
CAPE SMITH
AMADJUAK
FORT HARRISON
LEPAGE
SCHEFFERVILLE
WELCOME ISLANDS
CAPE DYER
CAPE CHIDLEY
LAKE HARBOUR
CAPE HENRY KATER
CAPE DYER
CAPE DORSET
FOX PEN
FOXE CHANNEL
FROZEN CHANNEL
WAGER BAY
REPULSE BAY
CHANTREY INLET
KING WILLIAM ISLAND
GJOA HAVEN
QUEEN MAUD GULF
AMUNDSEN GULF
DARNLEY BAY
PRINCE ALBERT
PRINCE PATRICK ISLAND
MELVILLE ISLAND
BATHURST ISLAND
CORNWALLIS ISLAND
DEVON ISLAND
AXEL HEIBERG ISLAND
EUREKA
ELLESMERE ISLAND
LANCASTER SOUND
BARROW STRAIT
M'CLURE STRAIT
NORTH MAGNETIC POLE
BOOTHIA GULF
COPPERMINE
CORONATION GULF
GREAT BEAR LAKE
GREAT SLAVE LAKE
BAKER LAKE
RANKIN INLET
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160°
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80°
70°

participation by laymen in the care of the ill than that which has been an outstanding feature of the history of northern Canada over the past 300 years.

The present health service to the north is a joint operation between the Federal and Territorial governments, each contributing its share of the costs. The health program is one of treatment and prevention, with increasing emphasis upon prevention. The present health picture of the north cannot be favourably compared with that of the rest of Canada; however, viewed over the past twenty years, there has been a marked improvement in the statistics. There are factors other than disease which work to the disadvantage of the people, factors such as transportation, communication, sub-optimal housing, harsh climate and, perhaps of greatest importance, lack of health 'awareness'.

In the following pages we shall try to depict, mainly pictorially, a health sketch of the north: the people, the place, the health program and the results of our efforts in bringing to these people a "Northern Health Service."

A rest pause in a bleak and beautiful setting.

THE PEOPLE

THE PLACE

Woman and child in the Central Arctic.

This healthy young boy wears native style parka.

The Old Life . . . inside igloo, Perry Island, N.W.T.

The land and its inhabitants can only be described as a mosaic, a mosaic of races, cultures, climates and terrain.

It is an Eskimo at the breathing hole of a seal, conducting his interminable vigil in subzero weather, home-made harpoon in hand; it is his wife, back home in the igloo, skinning the seal hide with her "ulu". It is a geologist, surveying some vast expanse of 'virgin' rock in search of oil, coal or heavy metal. It is an Indian checking his trap line somewhere in the Mackenzie valley or acting as a guide to the

And The New . . . high-rise apartment, Frobisher Bay.

"Motel" for a night, building an igloo, Cumberland Sound, Eastern Arctic.

visiting 'white' hunter or fisherman from Calgary, Montreal or New York. Indeed, it is now the Indian and Eskimo territorial councillor sitting in session in Yellowknife, bringing the needs of their people to the attention of the highest elected constitutional body of the territories.

The Indians of the north number some 7,000. They reside only in the western part of the territories, around Great Slave Lake and the Mackenzie valley, right up to the river's mouth at Inuvik. The Indian came to Canada ahead of the Eskimo and, quite naturally, took the choicest land, below the tree line. The trees gave him shelter, fuel, food and herbs with which to treat his illnesses. He guarded his 'forest domain' tenaciously against the migrations of the more recent inhabitant, the Eskimo.

The Indian tribes who settled in the north are the Athapaskans. They are made up of a number of tribes, the Nahanni, Yellowknife, Dog Rib, Slave, Chipewyan and the Hare. Each has retained its hereditary social structure, language and dialect but, with increasing ease of transportation and communication, a 'moulding pot' is in the making. Most of the tribes have retained their 'chief' and some still have their councillors. A recent development has been the polarization of all Indian bands into one 'identity' by which to confront the "white intruder" who seeks to monopolize the land, tap the natural resources and determine the 'law of the land'. The unified voice of the Indian is now being heard and respected.

Children in "Mother-Hubbard" parkas, Western Arctic.

Time of the midnight sun.

Rain, cooler and the snow to come.

The Eskimos number some 12,000. They live on the barren tundra, above the tree line and they are the last beneficiaries, or victims, of the 'white culture'. Their population distribution clearly indicates the necessity for them to spread themselves rather thinly over the Arctic in small encampments, their size depending upon availability of food. The Eskimo 'camp' has no chief or official leader. Perhaps one man leads the group because of his skill as a provider or because of proven 'supernatural' powers; but the only basic and permanent social unit is the 'family'. Because of centuries of deprivation, hunger, disease and death, there has evolved a fatalistic philosophy, best described by the word "Ayorama", meaning "it can't be helped" or "it was meant to be and is therefore acceptable". This attitude, although necessary and indeed, wholesome in the past, has proven to be one of the most difficult 'hurdles' to penetrate now that there is a health service because we are faced with a people who are content to suffer needlessly when help is available. But, in spite of this, one cannot but admire their self-sufficient philosophy inasmuch as it highlights the extreme dependency of ours.

This, then, is the setting. It is both enviable and pitiful. It is frustrating but satisfying. One cannot participate in any meaningful way in a service to these people without giving a lot and receiving a lot. The 'overnight reformer' is quickly rejected. The domineering expert somehow finds himself gently transferred back to the 'south'; but the one who listens and explains his purpose and asks for their criticism and guidance, is a welcome stranger to their land.

Gathering in the "Front Yard", Western Arctic Camp.

This smiling little girl is from Old Crow, Yukon.

This native-type parka hood is worn by Inuvik woman.

Winter sunset over Boot Lake, Inuvik.

This northern nurse is a "Jack of all trades".

Nurses living room, trailer nursing station, Resolute Bay, N.W.T.

FACILITIES

The northern communities vary in size from the 'cosmopolitan' centre of 10,000 to the permanent settlement of 50, and the health facilities are designed in such a way as to meet the specific needs of each community.

For the itinerant hunters, a compact 'medical family pack' is provided. This bundle of drugs, in a weatherproof bag, is issued to each family for use on the trail. It contains the basic drugs which are indicated for a wide range of common illnesses, along with instructions in the appropriate language, for dispensing. This system of the family medical pack may at first seem to be an exercise in medical 'quackery' but it has proven its usefulness many times over for people who are completely cut off from any means of communication. Its worth is borne out by the fact that the people 'ask for it'.

Point of first referral, the health station.

The basic permanent health facility in the north is somewhat similar to the Casualty Collecting Station of World War II fame. It is the 'Health Station'. It is erected in settlements of up to 150 people. This structure provides beds for the seriously ill until they can be evacuated onwards. It provides an examination room for visiting nurses and doctors and it provides for their accommodation and meals. It is equipped with an examination room, pharmacy and dental instruments. It is under the supervision of the native lay-dispenser or community aide, who is a person trained in the basic concepts of diagnosis and treatment, to the extent that they can render first aid and report symptoms to the nearest nurse or doctor. The health station is the point of 'first referral'.

Truly the 'backbone' of the service is the Nursing Station. It is found in settlements of from 150 to 700 people and is staffed by one to three resident nurses. Each station consists of an outpatient clinic, in-patient beds for the more seriously ill and living quarters for the nurses. Here the accent is on treatment and public health. Attempts are made to ensure that there is at least one nurse with midwifery training and one who has had training in public health. Problem cases are referred to the visiting doctor, who attempts to reach each station once a month. The nurses conduct home visits, give instructions on prenatal health, conduct well-baby clinics and with the aid of the Community Health Worker, give classes on health education.

Some nursing stations are 'portable' and, as the name implies, these stations can be moved from place to place, depending upon the shift of population from one community to another. Although most of the northern communities are increasing in size, there are those from which the people are migrating to more densley populated settlements where more opportunities for permanent employment exist. The health service tries to anticipate these migrations by using the 'trailer nursing station' concept. These stations can literally 'follow the crowd around the north'.

The Health Centre is surely the unsung health hero of the north. There is something quite dramatic about the active emergency treatment of the acutely sick patient but we tend to be much less inspired by the program

The Nursing Station, "Backbone" of Northern Health Services.

"Trailer" Nursing Station at Resolute Bay, N.W.T.

Public Health Centre, Haines Junction, Yukon Territory.

Whitehorse General Hospital, referral centre for 15,000 "Yukoners".

of 'disease prevention' simply because the disease 'never happened.' The Health Centre is located in those settlements where there are already facilities and staff for the care of the ill. The staff of the health centre deal solely with disease prevention. They are staffed by public health nurses, community health workers and in the larger centres, by public health inspectors. They are dedicated to the task of stopping disease before it occurs . . . by immunizations, prenatal teaching, well-baby clinics and home visiting.

The largest health facility is the hospital and there are twelve such institutions in the north. They are operated by the Federal Government, the municipality or by the religious mission. Some of the latter are of rather ancient vintage, constructed with haste and dedication when diseases raged widly and uncontrolled throughout the north. The northern hospital serves not only the settlement in which it is located; it is also the point of referral for a large 'drainage' area of patients from the surrounding district. The patient may come by dog team, skidoo, boat or plane. The smaller hospitals such as those at Chesterfield Inlet and Pangnirtung, have no permanent medical staff and the nurses rely upon monthly or bi-monthly doctors' visits.

General Hospital, Yellowknife, capital city of the N.W.T.

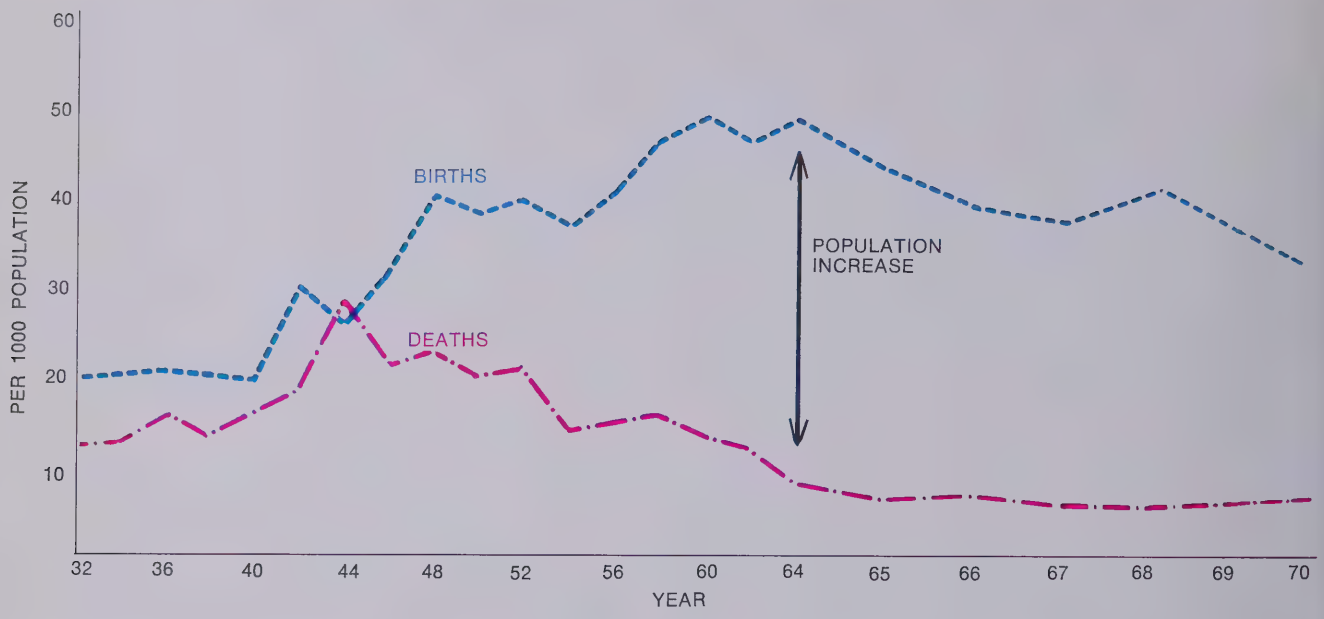
Frobisher Bay General Hospital, Baffin Island.

The larger hospitals such as those at Whitehorse and Inuvik, are staffed by from five to ten 'attending' doctors, among them being general practitioners and specialist surgeons.

The hospital of 'final referral' for the Western Arctic is the Camsell Hospital in Edmonton. This is a 'service hospital' for the north. Here the accent is on 'total' patient treatment, meaning that the northern patient, in addition to being treated for the primary complaint, is checked by a barrage of specialists in the various medical disciplines. Perhaps at no other hospital in North America are there Indian and Eskimo interpreters and health educators, as well as a social service which is staffed by persons knowledgeable about the north. Most of the Camsell medical staff are personally aware of the land from which their patients come, having either lived previously in the northern territories or having travelled extensively through the north on medical tours.

Aerial view, Inuvik General Hospital, the most northerly in Canada.

VITAL STATISTICS, N.W.T.



Charles Camsell Hospital, Edmonton . . .
final point of referral.

TREATMENT

When we think of the treatment of illnesses we tend to envision at least the presence of the doctor with his black bag. Not so in the north, at least in the smaller settlements. It is not until a community reaches a population of about 700 that we find a 'resident' doctor. Indeed, in settlements of from 50 to 100 people there is not even a resident nurse, and for good reasons. It is neither economical or practical to place a full-time nurse or doctor in these locations. There is simply not enough work load to demand their presence. Naturally, emergencies do occur and in anticipation of this, the health service provides a trained, native community aide. Such a person is chosen from members of

Industrial first-aid man, Melville Island oil exploration site.

Nurse-dispenser examines Eskimo child, Holman Island, N.W.T.

Indian "Community Aide" treats white fellow resident.

This northern nurse gives an Eskimo baby "a shot."

Nurse X-Rays the chest of Eskimo patient, Resolute Bay, N.W.T.

Nurse commences appropriate treatment. The doctor is always available, by phone.

the settlement and is trained in a hospital setting, in the basic concepts of medical diagnosis and treatment. During their training, emphasis is placed upon their limitations and when to contact the closest nurse or doctor for help. They are provided with a 'treatment manual' and equipped with a radio-telephone with which to convey messages to the closest nurse or doctor. The 'community' aide may be a first aid man at an industrial exploration site, an Indian or Eskimo housewife, or if we are fortunate, a graduate nurse who is otherwise 'employed' as a teacher or housewife.

The Northern Nurse, in her remote outpost station is, without doubt, the "backbone" of the health service. The nursing station described elsewhere, is staffed by one or three nurses. They hold daily outpatient clinics and admit the more serious cases to the two to eight inpatient beds of the station. Their treatment is supervised by the district medical officer, either by radio-telephone or during his monthly visit to the station.

The nurses are expected to deliver babies, suture up minor cuts and sometimes they pull teeth when the patient's toothache cannot 'wait' for the widely spaced visits from the dentist. The nurse must know how to take x-rays and perform minor laboratory procedures. Perhaps most important, they must know when to refer the patient onwards to the doctor.

Nurse clears the throat of newborn infant in incubator.

Infant in croupette, Whitehorse Hospital, Yukon Territory.

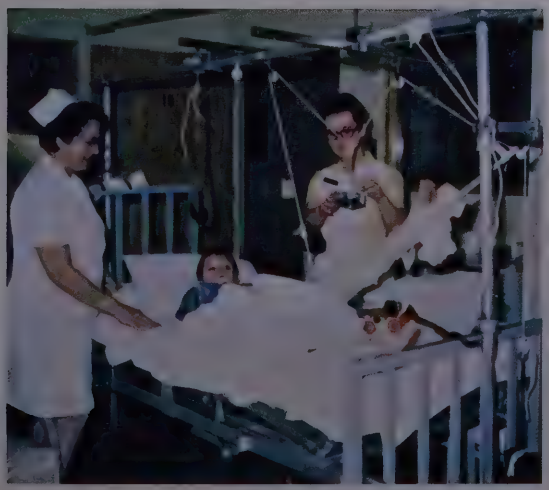
Intensive care, pediatric ward, Whitehorse Hospital.

Doctor examining child at Inuvik General Hospital.

Patient with eye disease being investigated.

The X-Ray department at Inuvik General Hospital.

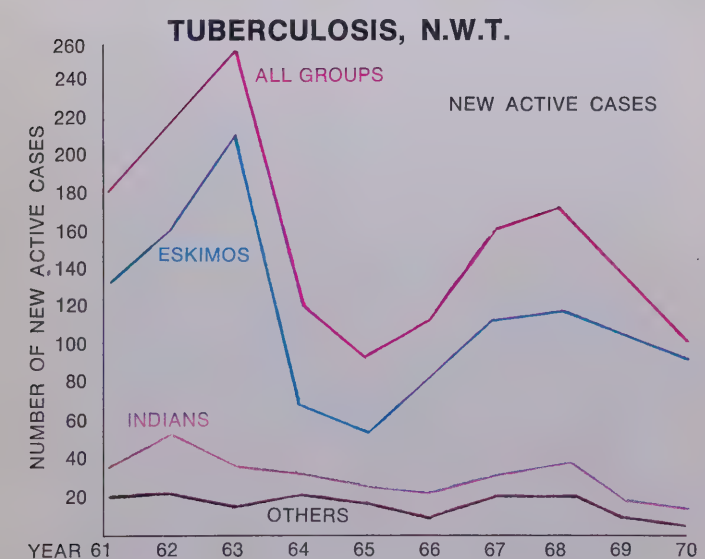
Long stay child patient, Whitehorse Hospital.

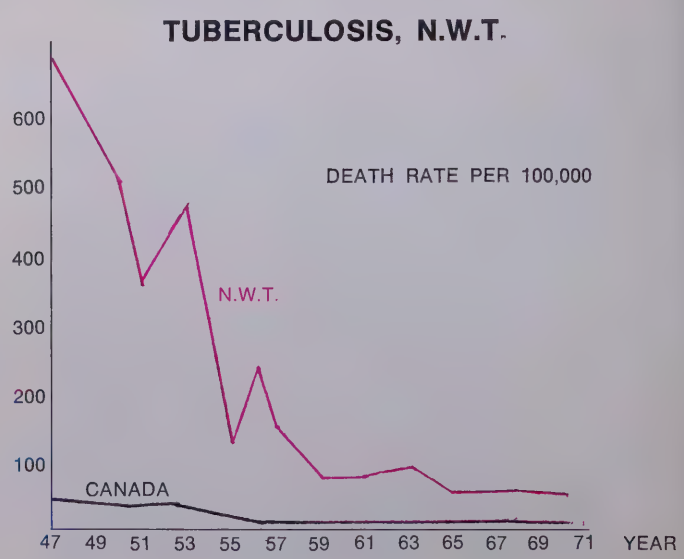


One of the greatest treatment challenges for the nurse is the care of the newborn and infant. The infant death rates in the north, particularly among the Eskimos, are still much too high. If the infant can 'survive' the first year of life, its chances of living through a normal life span are increased immensely. The treatment of the infant begins in the mother's womb. Emphasis is placed upon the importance of regular prenatal visits to ensure not only the well being of the mother but to see that the infant-to-be is given at least a healthy start in life.

Attempts are made to employ a nurse-midwife at each station and since Canadian nursing schools train few of this 'breed' of nurse, the health service must search outside of the

Tuberculosis consultant makes "final diagnosis", Charles Camsell Hospital, Edmonton, Alta.





Laboratory technician, Inuvik General Hospital.

country for the 'midwife'. Wherever possible a nurse with public health training is recruited for each station in order that a comprehensive program in disease prevention can be assured.

When a nurse is hired for work in the north she is usually brought first to one of the base hospitals for orientation into the various health programs and for training in some of the clinical procedures which she may later be called upon to perform. The 'course' is all too short but usually the need to get the nurse to her post is urgent. The turnover of nurses is very rapid, the average length of stay being about two years for any given posting. As 'outpost' nursing courses become more available, such as the one at Dalhousie University, attempts will be

The surgeon awaits the results of lab. analysis.

Blood bank technician checking blood group at Charles Camsell Hospital, Edmonton.

made to recruit nurses from such sources and, indeed, selected northern nurses will be encouraged to attend these one or two year courses with financial subsidization from the health department.

The nurse is not, by any means, confined to her settlement. Travelling alone or, more often with the touring doctor, she visits the smaller camps and examines the patients who are referred to her and the doctor by the native 'community aide'. Not infrequently she is called upon to escort seriously ill patients to the nearest hospital and sometimes she must continue her escort vigil right down to one of the larger referral hospitals in the south.

The word 'challenge' is loosely used these days but nowhere is it more applicable than when used to describe the duties and responsibilities of the 'Jack-of-all-trades' of the Northern Health Service, the northern nurse.

There are some 24 resident doctors in the N.W.T., and of these, 15 are employed by the Northern Health Service. The remainder are in private practice and they are located mainly in the larger centres of population . . . Fort Smith, Yellowknife and Hay River. Most of the doctors practise in groups, working out of a base hospital; however, in four settlements there are single doctor posts and it is in these places that the doctor, somewhat like the nurse at the iso-

Preparation of patient in the surgical theatre, Inuvik General Hospital.

Immunization starts at a very young age.

Occupational therapy, part of "total treatment" program, Camsell Hospital.

Weaving demonstration, skills to take home to the north.

Returning home with their prescription drugs, Eskmio mother and children leave Frobisher Bay hospital, Baffin Island.

lated nursing station, is often called upon to perform tasks which push him to the limits of his endurance and professional training. The nearest consultant specialist is usually hundreds of miles away but with improved telephone communication, the specialist can usually be contacted by phone for immediate aid and consultation.

Every northern doctor must be 'mobile'. The population, though small, is widely distributed and the doctor's rounds may involve travelling over a distance of 1,000 miles. He tries to visit each community in his area once per month but the actual frequency varies with the weather and the incidence of disease in any given community. An outbreak at one given place may restrict him from any other duties for prolonged periods. It is at these times that 'emergency measures' are taken and additional doctors, usually from the south, are called upon to answer the need.

The larger hospitals in the north are staffed by both general duty doctors and specialists. The most important specialist is the surgeon, who must be available to treat the emergency surgical cases. It is not uncommon for a seri-

The Pharmacy, Inuvik General Hospital.

Nurse instructs native lay-dispenser on use of drugs.

Dental decay — one of "civilization's gifts" to the Eskimo.

ously ill patient to be held for a number of days in the north because of bad weather. The answer is to ensure that there are adequate treatment facilities and personnel 'on the spot' to cope with these emergencies.

Those patients who are so sick that they can only be adequately treated in the south are evacuated by air to one of the fully equipped and staffed university hospitals. Of particular note is the Camsell Hospital in Edmonton, already described in the section on 'facilities'.

In recent times there has been an increasing involvement of teaching university hospitals in the medical problems of the north. This has resulted in agreements, with three Universities, to actively participate in the health service to the north. There are now regularly scheduled visits to the north by medical specialists in every major field of medicine. We are rapidly coming to the point where Canada as a nation now has a keen awareness of the health conditions of the north, and more important, active steps are being taken to deal with the problem.

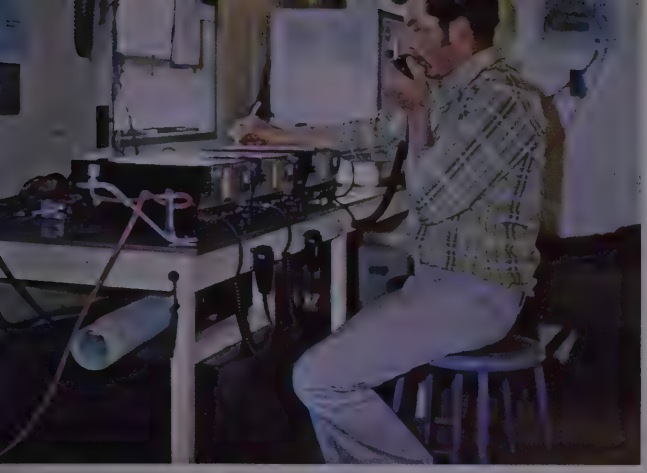
TRANSPORTATION and COMMUNICATIONS

"Old reliable," the dog team.

Nurse and community health worker plan house calls, Spence Bay, N.W.T.

No matter how efficient a health service may be in terms of facilities and staff, it can be utterly paralyzed in the absence of an efficient means of communication and transportation. The Northern Health Service therefore relies heavily upon these two resources and in recent times there has been a gratifying improvement in both.

Picture a settlement of some fifty persons. A child becomes ill and is seen by the local native community aide. The nature of the disease is obscure but treatment is started in the hope that the miracle drugs will help. But the patient gets worse. It is at this point that the next step hinges completely upon the means which are available to communicate with the closest nurse or doctor. The message is relayed onwards through one of the North's many communication systems. The nurse from the nearest nursing station advises evacuation and, again, the radio-telephone network allows her to contact the nearest plane and the patient is transferred to the nursing station. Again the patient is questioned, examined, and appropri-



Department of Transport radio operator relays the message.

Nurse consults doctor by radio-telephone.

The doctor must decide to evacuate patient or to treat locally.

The patient must go "south," and everybody lends a hand.

The precious cargo boards a DC-6 aircraft, Resolute Bay, N.W.T.

The settlement nurse must escort the more seriously ill and return to her station quickly!

Health team visits nursing station, (top of the hill), Spence Bay, N.W.T.

ate laboratory tests and x-rays are taken; but the diagnosis is still in doubt and the patient is obviously sick. Again communications come into play and the nurse contacts the doctor and, if the weather permits good reception of the message, immediate consultation is made. Traditionally the doctor relies heavily upon the outpost nurse. If she expresses anxiety about a patient, the usual advice is to 'play it safe' and request immediate transfer onwards to the doctor. The procedure is repeated; examination, more tests and perhaps a definite diagnosis reached and necessary treatment commenced. But if there is continuing doubt as to cause or if the condition worsens, no effort is spared to evacuate the patient even further onwards to a base hospital, or indeed, to the point of final referral — the university hospital in the south. If evacuation is deemed urgent, a plane is immediately chartered; if there is time to spare, the patient awaits the next scheduled aircraft to the settlement. Each step in this sequence is dependent upon the ability to 'communicate' and the availability of transportation, usually by aircraft.

Today communications have improved to the point where it is possible to contact medical specialists from such remote outposts as Coppermine, Cambridge Bay and even Arctic Bay, on Northern Baffin Island, by radio-telephone.

As roads expand the car becomes more common. Public Health nurse in front of Health Centre, Yellowknife.

DISEASE PREVENTION

"An ounce of prevention is worth a pound of cure". The Northern Health Service is no exception to this aged parable. However, in many cases prevention of disease is an almost impossible challenge because the cause is not known. In such cases frequent medical/nursing tours of the settlements are the only answer in the hopes that if not preventable, the diseases will, hopefully, at least be caught early.

The "big killers" of the northern people have been epidemics of measles, whooping cough, polio, meningitis and tuberculosis. These diseases, each in its turn, have come close to wiping out entire settlements. Now all of them, with the exception of meningitis, are known to be preventable; but the secret of pre-

The Public Health Nurse's aim — to keep him healthy.

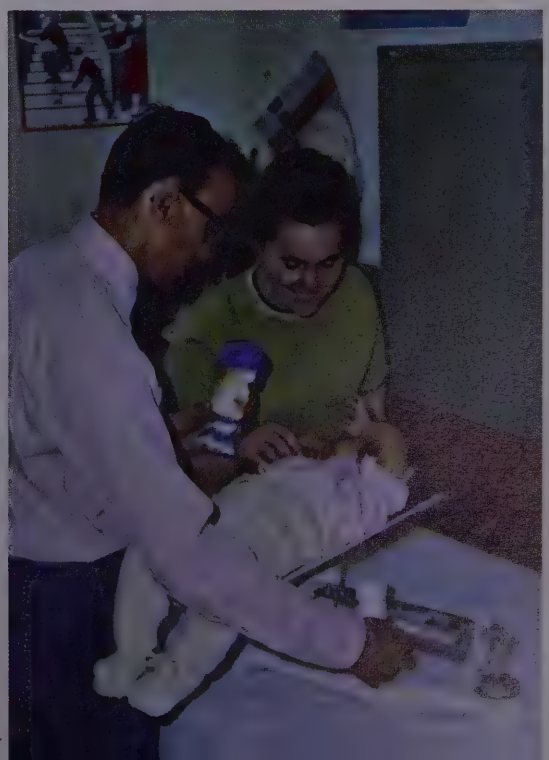
vention is not easy; it requires constant effort by the nurse, co-operation of the people and large sums of money. The health service can justifiably boast of having one of the most comprehensive and effective immunization programs in the world, and the almost complete absence of those diseases for which there is protection "by needle" bears witness to the program's success.

But Public Health is more than needles. It is a nurse telling an expectant mother how to care for herself and her unborn baby or, indeed, it is a nurse telling a woman why, for medical reasons, she should have no more babies and telling her how to keep from getting pregnant. Public Health is a nurse or doctor trying to encourage the mothers to bring their healthy babies to the clinic in order that the baby will continue to be healthy. Public Health is a doctor calling a public meeting to talk about the health hazards of smoking or taking LSD or of drinking impure water. It is a visiting psychiatrist talking about the causes and nature of mental disease. Public Health is anything that serves to tell the people what is bad for their physical and mental health. Public Health is, historically, the oldest protestor against POLLUTION in its broadest sense.

The "Well Baby" Clinic.

School health examination: Nurse gathers basic data in preparation for visiting doctor.

Community Aide helps public health nurse at "Well Baby" Clinic.



The winter sun glows over Tuktoyaktuk.

Dog teams are still used to visit remote areas.

One of the greatest problems in the field of disease control and treatment is Tuberculosis. This disease is well known to be an 'opportunist' where there is overcrowding, malnourishment and lack of personal hygiene. The incidence of T.B. in the north is so high that it has provoked the creation of a separate department to concentrate exclusively upon its control and eventual eradication. Among the control measures is a chest x-ray and sputum collection program which aims at an annual survey of the entire population of the north. To accomplish this, the x-ray machine must go to the people and portable equipment is used wherever necessary. Where else in North America does one see a small aircraft land on the frozen sea and disembark a doctor, nurse, x-ray technician and portable x-ray machine to take pictures of the campers' chests? To the health service this is just one more addition to the disease prevention program.

Pre-natal clinic at Health Centre, Hay River, N.W.T.

Public Health Nurse on home visit, Tuktoyaktuk, N.W.T.

X-rays on an "ice flow." Otter aircraft brings medical team to isolated Eskimo settlement. Portable x-ray machine and darkroom developing tent, foreground.

Outfitted for house calls, Public Health Nurse, Resolute Bay, N.W.T.

Comparing notes. Two Public Health Nurses discuss their work schedule. Yellowknife Health Centre, background.

The doctor conducts a "well baby clinic", Inuvik, N.W.T.

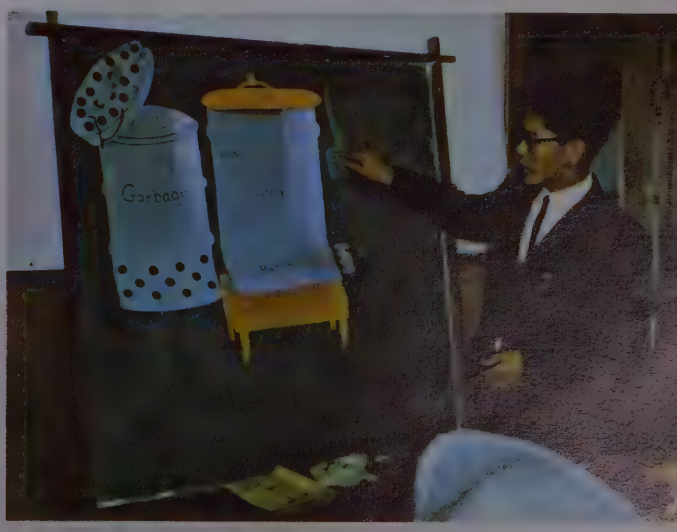
A satisfied new mother and her child, post natal clinic, Inuvik, N.W.T.

A Public Health program is meaningless without a means of communicating with the people. Even where all people speak the same language and have approximately the same values, it is a difficult task. The north has none of these advantages and it has the greatest need. Because of this the health service, in recent years, has started a program in which it trains selected native residents of the north in the basic principles of 'community' health. The 'Community Health Worker' as he or she is called, must be, above all, a respected member of the community; that is, they must be one whom the people will heed. Having been selected, the C.H.W. is given a five month course by various health educators. They are taught about the causes of disease and the ways to prevent them. This includes garbage disposal, sewage collection, home cleanliness and personal hygiene. They are taught about alcohol and drugs and why these things are harmful. Most important, they are entrusted with the all important task of accepting the 'white man's' concepts of community health and passing these on to their own people in such a way that 'their' people understand it and are motivated by it. In a very real way the program of disease prevention rests with the Community Health Worker.

Installation of water and sewer services, Cantung, N.W.T.

Public health engineer instructing native community health workers.

Community health worker trainee gives presentation to fellow students.

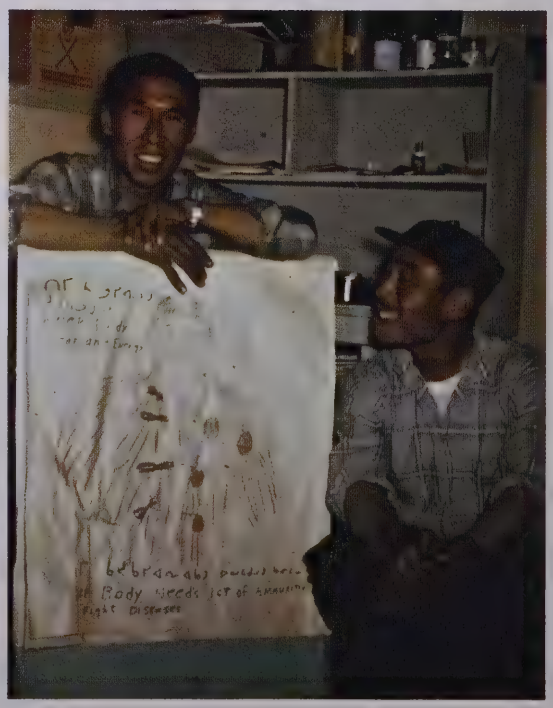


We live in an age of environmental pollution. It has been going on for centuries but only in the recent past has there been a keen awareness and interest in this menace; and the North is not immune from its ravages. The 'Public Health Inspector' or 'Sanitarian' has been an integral part of the Health Service for some time but it is only in the recent past that the importance of his role has been identified. The 'sanitarian' is the watchdog of the health service. It is his duty to patrol the various communities to ensure that adequate standards of environmental health are maintained. He is armed with Territorial Health Ordinances and regulations with which to enforce his demands. His duties include inspections of restaurants, hotels, motels, swimming pools, dairies and mining camps. He is not the most popular person in the north, particularly to the struggling owner of a cafe or wayside tourist station but no one can dispute the importance of his 'mission'.

There is a growing awareness of the need to involve the native people themselves in the function of the health service. The Community Aide and the Community Health Worker have already been mentioned. The most recent development in 'native staff training has been a course for 'certified nursing assistants'. Candidates are selected from various communities for the course and are given a nationally recognized training program which enables them, upon completion, to compete for jobs, not only in northern hospitals, but throughout the length and breadth of the country.

Hopefully the philosophy of involving the northern people in northern health services will be expanded to the point where the nurses, public health inspectors and the doctors will truly be 'people of the north'.

Getting down to the basics of sanitation.



Bridging the language barrier. Community health worker, Spence Bay, N.W.T.

Public health inspector checking dishwasher in Yukon restaurant.

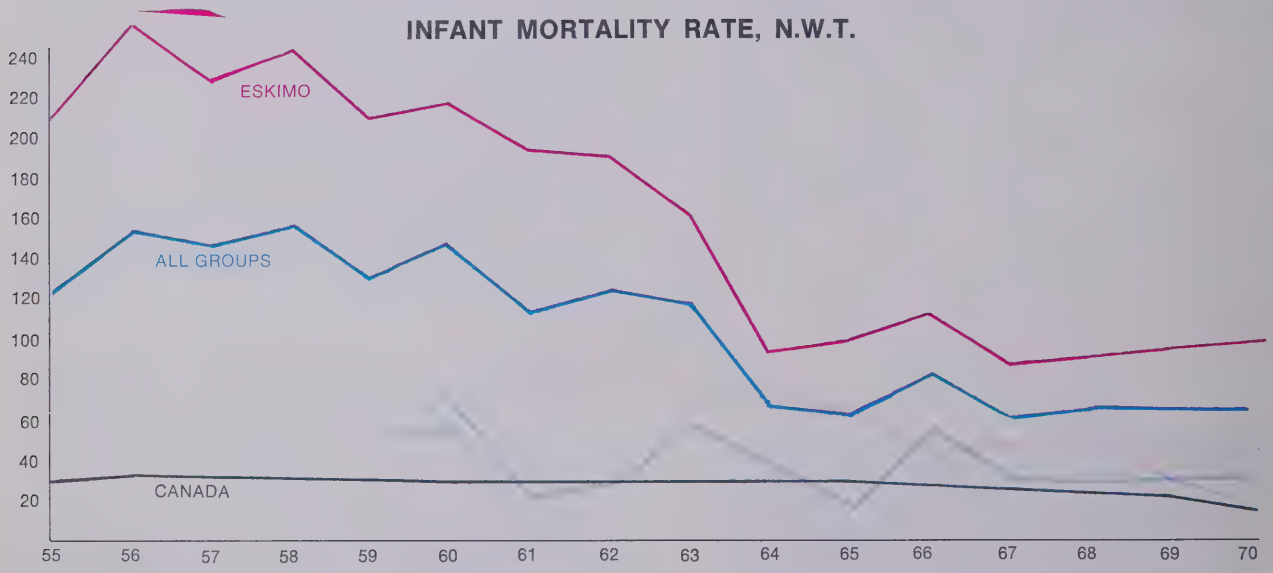
Conducting bacteriological analysis of water, Whitehorse, Y.T.

Inspection of Motel, Whitehorse, Y.T.

Inspection of food and food equipment, Whitehorse, Y.T.

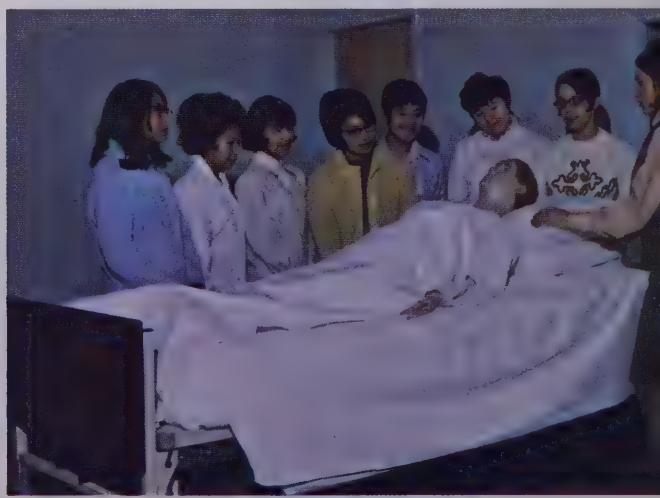
Certified nursing assistants course, classroom theory.

Community aide receiving instructions from doctor on use of basic medical drugs.



Finally — the real thing!

Practical demonstration of bedside technique.



MEDICAL RESEARCH

Mobile research unit sets up on Arctic tundra.

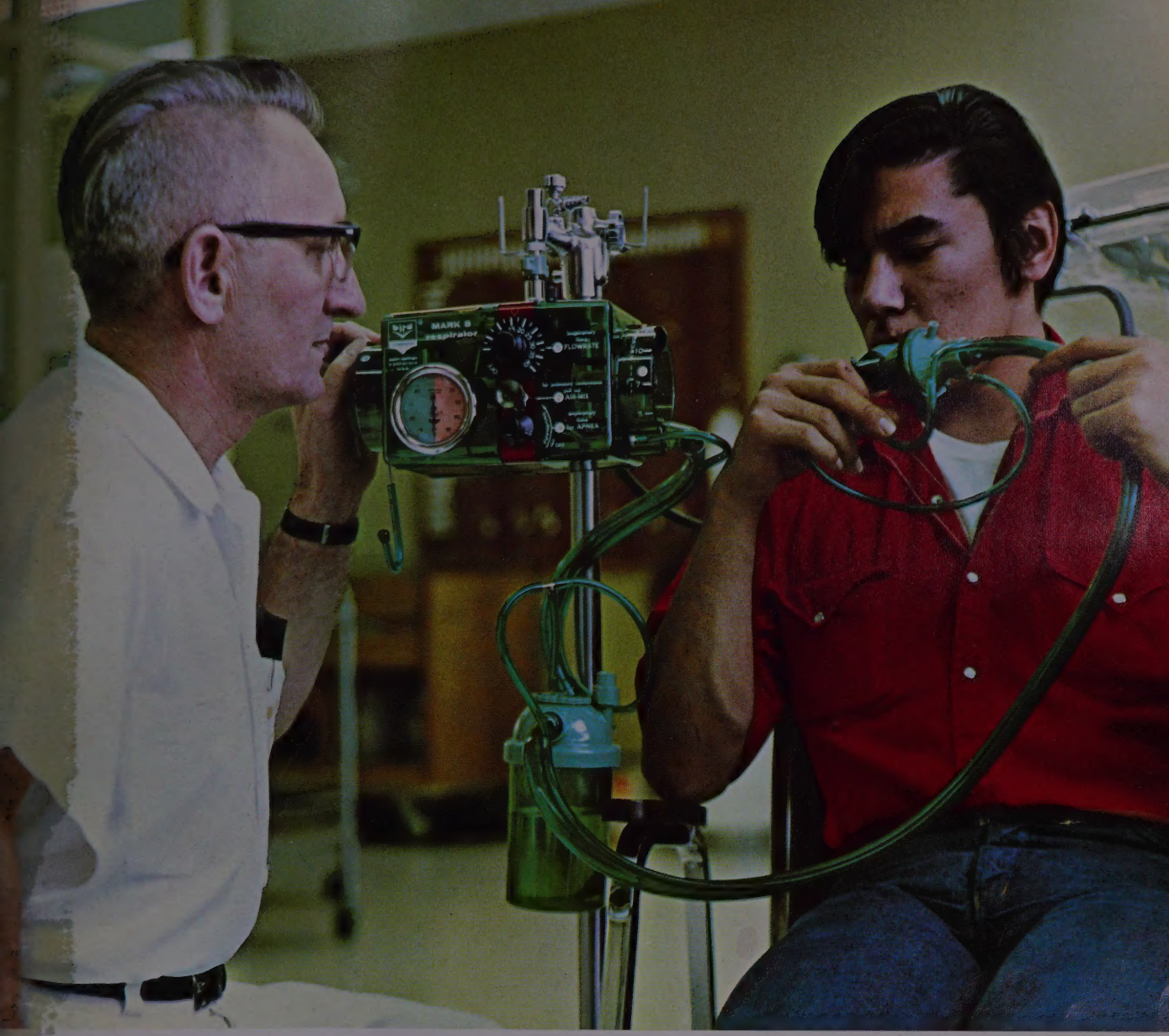
Camsell hospital specialist "traces down" the cause of illness.

Research is the means by which we gain insight into the true value of our health service. It provides an indication as to where we have strayed off the beaten path and it gives us a clue as to where we should be directing our attention. It seeks to find the causes of illness and death, and in the northern health service it seizes upon problems which are peculiar to the north and attempts to identify the cause.

The Northern Medical Research Unit is staffed by two full-time physicians with specialist training. This unit is presently looking into the incidence of diabetes, the level of nutrition in various areas of the north and the incidence of diseases with change of diet, exercise and, indeed the thinking of the person as a result of conforming to the 'white man way'.

The medical research division frequently calls upon medical consultants from various universities to lend their expertise to the special medical problems of the north. With the aid of University consultants, studies are underway to find ways and means of developing an effective vaccine to protect the people from meningitis, which is still a 'high incidence' cause of disease and death in the north. Specialists from McGill University and the University of British Columbia are joining forces with

Research doctor conducts tests on western Arctic Eskimo.



Chest investigation unit, Camsell Hospital, Edmonton.

our chronic disease consultants to find ways to eradicate, once and for all, the classical 'disabler of the north — tuberculosis.'

The 'researcher' of the north has no sedentary job. In addition to his professional qualifications, he must be prepared to "rough it" in the Arctic cold, camp for weeks on the barren lands of the Keewatin and make do with limited supplies of research equipment and technical assistants.

The adequacy of the Northern Health Service is dependent, to a very great extent, upon the guidance of the medical research unit.

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